

Sorbents

Objective: To remove surface oil by using oleophilic (oil-attracting) material placed in water or at the waterline.

Description: Sorbent material is placed on the floating oil or water surface, allowing it to sorb oil, or is used to wipe or dab stranded oil. Forms include sausage boom, pads, rolls, sweeps, snares, and loose granules or particles. These products can be synthetically produced or be natural substances. Efficacy depends on the capacity of the particular sorbent, wave or tidal energy available for lifting the oil off the substrate, and oil type and stickiness. All sorbent material must be recovered. Loose particulate sorbents must be contained in a mesh or other material.

Applicable Habitat Types: Can be used on any habitat or environment type.

When to Use: When oil is free-floating close to shore or stranded on shore. The oil must be able to be released from the substrate and sorbed by the sorbent. As a secondary treatment method after gross oil removal, and in sensitive areas where access is restricted. Selection of sorbent varies by oil type: heavy oils only coat surfaces, requiring use of sorbents with high surface areas to be effective (adsorbents); lighter oils can penetrate sorbent material (absorbents).

Biological Constraints: Access for deploying and retrieving sorbents should not adversely affect wildlife or be through soft or sensitive habitats. Sorbents should not be used in a fashion that would endanger or trap wildlife. Sorbents left in place too long can break apart and present an ingestion hazard to wildlife.

Sorbents (cont.)

- Environmental Effects: Physical disturbance of habitat during deployment and retrieval. Improperly deployed or tended sorbent material can crush or smother sensitive organisms.
- Waste Generation: Sorbents must eventually be collected for proper disposal so care should be taken to select and use sorbents properly, and prevent overuse and generation of large amounts of lightly oiled sorbents. Because large amounts of waste may be generated, recycling should be emphasized rather than disposal.